	Application No.	Applicant(s)	
Notice of Allowability	09/768,697	SHLAFMAN ET AL.	
	Examiner	Art Unit	
	Daniel L. Greene Jr.	3694	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *the 8/3/2005 response and 12/12/07 telephonic interview*.

2. ☒ The allowed claim(s) is/are *1,6-14,17-22,25-30,33-35,38-44,47 and 48*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some*   c) ☐ None   of the:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of

    Paper No./Mail Date _____ .

    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☒ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 8/3/2005

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application

6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____

JAMES P. TRAMMELL
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600

EXAMINER'S AMENDMENT

1.   The Finality of the previous Office action mailed 12/28/2007 is hereby withdrawn. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Peter Ludwig on 12/12/2007.

2.   The application has been amended as follows:

2.a   Amend claim 1 to read as follows:

A computer-implemented method for trading in a financial derivative of an underlying asset, comprising:

determining a trend of a stochastic process, which is predictive of a future value of the asset and a predicted variance of the future value;

using a computer to calculate a first density function indicative of a probability distribution of the value at a first time in the future responsive to the trend and the variance;

calculating a second density function based on the first density function at the first time, by integrating a random variable representative of the stochastic process over the first density function at the first time to find the probability distribution of the value at a second time, subsequent to the first time, wherein the random variable has a plurality of discrete values with a normal probability

distribution and the random variable comprises a convex superposition of

mutually-translated delta functions comprising at least the following formula;

$$\Delta(z) \;=\; \sum_{r=1}^{m} \alpha_r \delta\!\left(z \,-\, z_m\right)$$

, and

computing at least one of an expected value of the asset and an expected

yield of the financial derivative based on the second density function as a basis

for making a trading decision with regard to the derivative of the asset.

2.b.   Cancel claims 4 and 5

2.c.   Amend claim 22 to read as follows:

Apparatus for trading in a derivative of an underlying asset, comprising:

an input interface, which is arranged to receive input information

regarding a trend of a stochastic process, which is predictive of a future value of

the asset; and

a decision processor, which is adapted, responsive to the trend and to a

predicted variance of the future value, to calculate a density function indicative of

a probability distribution of the value at a first time in the future and, based on the

density function at the first time, to recalculate the density function by integrating

a random variable representative of the stochastic process over the density

function at the first time to find the probability distribution of the value at a second

time, subsequent to the first time, wherein the random variable has a plurality of

discrete values with a normal probability distribution and the random variable

comprises a convex superposition of mutually-translated delta functions

comprising at least the following formula;

$$\Delta(z) = \sum_{r=1}^{m} \alpha_r \delta(z - z_m)$$

, and

to compute at least one of an expected value of the asset and an

expected yield of the financial derivative based on the recalculated density

function, and to provide an output for use in making a trading decision with

regard to the derivative of the asset based on the density function the at least

one of the expected value of the asset and the expected yield of the financial

derivative.

2.d. Amend claim 35 to read as follows:

A computer software product for use in trading in a derivative of an

underlying asset, the product comprising a computer-readable medium in which

program instructions are stored, which instructions, when read by a computer,

cause the computer, responsive to a trend of a stochastic process, which is

predictive of a future value of the asset and to a predicted variance of the future

value, to calculate a density function indicative of a probability distribution of the

value at a first time in the future and, based on the density function at the first

time, to recalculate the density function by integrating a random variable

representative of the stochastic process over the density function at the first time

to find the probability distribution of the value at a second time, subsequent to the

first time, wherein the random variable has a plurality of discrete values with a

normal probability distribution and the random variable comprises a convex

superposition of mutually-translated delta functions comprising at least the

following formula;

$$\Delta(z) = \sum_{r=1}^{m} \alpha_r \delta(z - z_m)$$

, and

to compute at least one of an expected value of the asset and an

expected yield of the financial derivative based on the recalculated density

function, and to provide an output for use in making a trading decision with

regard to the derivative of the asset based on the at least one of the expected

value of the asset and the expected yield of the financial derivative.

3.   The following is an examiner's statement of reasons for allowance: The closest

prior art of Tucker et al. does not disclose or make obvious the specific method set forth

in amended claim 1. Specifically the use of a random variable comprising a convex

superposition of mutually translated delta functions utilizing the specific equation set

forth in the specification as filed.

4.   Any comments considered necessary by applicant must be submitted no later

than the payment of the issue fee and, to avoid processing delays, should preferably
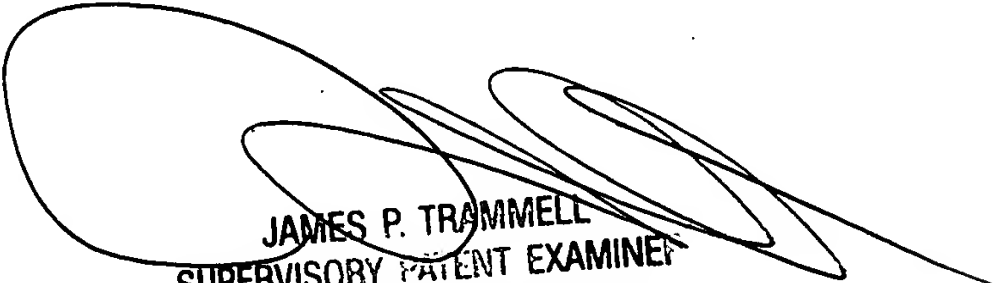
accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

5.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel L. Greene Jr. whose telephone number is (571) 272-6876. The examiner can normally be reached on Mon-Thur.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James P. Trammell can be reached on (571) 272-6712. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

6.   Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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